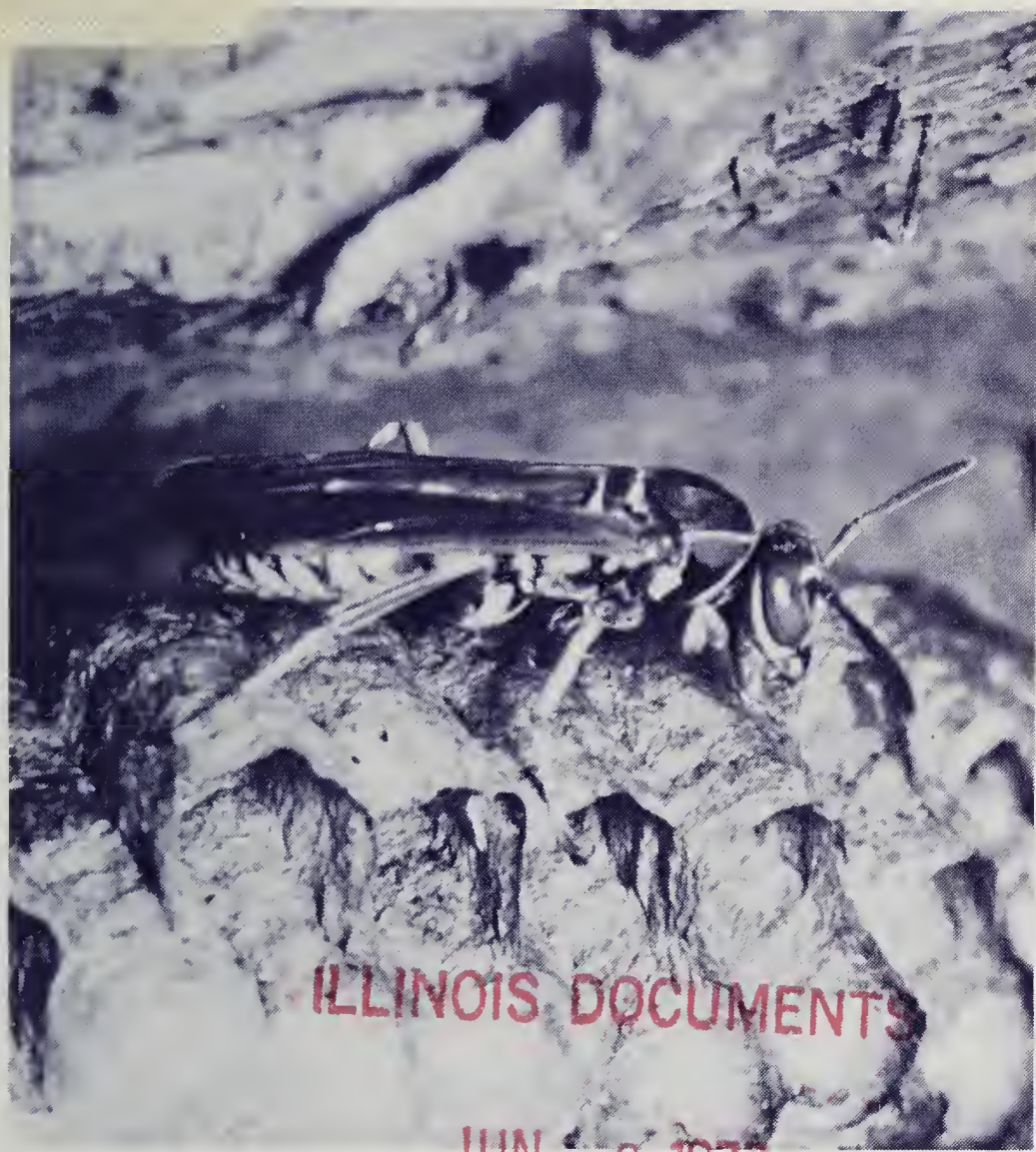


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Destroying Bees and Wasps

by Elbert R. Jaycox

Cooperative Extension Service
College of Agriculture
University of Illinois at Urbana-Champaign
Circular 1137

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BEES AND WASPS are two of the insects most beneficial to man. Bees produce honey and wax and serve as important pollinators; wasps attack and destroy many kinds of harmful insects including flies and caterpillars. In spite of their value, several kinds of bees and wasps are unwelcome in and around buildings because of their ability to sting and their tendency to defend their nests. Because wasps resemble bees in appearance, honey bees are often blamed for the misdeeds of some of the social wasps such as hornets and yellow jackets. Wasps can sting repeatedly while the honey bee stings only once and leaves its sting at the site.

Both wasps and bees can be readily controlled with insecticides. Honey bees are harder to remove than wasps because their colonies are larger and they tend to nest within the walls of buildings.

Honey bees

Swarms. In spring and early summer, honey bee colonies divide by swarming. Half or more of the worker bees leave their home to begin a new colony, usually with their old queen. They cluster on some object such as a tree branch for a few hours to several days, and then enter a new home such as a hollow tree or the wall of a building.

Swarms are not usually a problem unless they land in an inconvenient spot or are molested. They are best left alone until they leave, but if you want to have them removed, ask the county Extension adviser, police department, or other agencies for the names of beekeepers willing to collect swarms. Many beekeepers have been forced to charge for collecting swarms because of the low value of the bees and the problems involved in collecting them. An alternative is to have the bees killed by a pest-control operator, who will also charge for doing the job. If one person agrees to come for the bees, do not contact other people about doing the same job.

In buildings. When a swarm enters a building, it begins to build combs of wax in which to rear young bees and store honey. Only when the bees first enter can they be killed without having to open the wall and remove large quantities of dead bees, wax, and honey. If the colony has been in place as long as a month, it must be removed after it is killed. Otherwise there will be problems due to the odors of decaying bees, other insect pests entering the wall, and honey released within the wall as combs melt or are destroyed by other insects or mice.

Insecticides are the safest and most effective materials for killing bees in buildings. Do not use fumigants or other poisonous or flammable compounds. Carbaryl (Sevin), diazinon, and malathion insecticides are most suitable. *All of them are toxic to humans and must be used with care according to the directions on the container label.*

Before applying an insecticide, you must know the location of the colony in the wall, especially in relation to the flight entrance. Often the colony's nest is far enough away from the entrance that insecticides applied at the entrance will not reach the bees. The bees' nest should be located by tapping on the wall at night and listening for the area of loudest buzzing sounds. The bees keep the nest center at about 95° F., a temperature high enough to warm the wall beside it, so you may be able to feel as well as hear the nest location.

Either dust or spray formulations can be used within walls or other cavities, but dusts generally disperse better and are more effective. Apply the insecticide at night through the entrance hole if the colony is fairly close to it in the wall. If the colony is farther inside, drill a hole in the wall above it and apply the dust or spray through the hole. Afterwards, seal it and all other holes through which bees might enter or leave the wall. An extremely large colony may require an additional treatment after about 10

days to kill young bees that have emerged from the comb.

After all sound and flight activity have ceased, or at least within 2 weeks, open the wall and remove all dead bees, combs, and honey. These must be burned or buried because they attract other bees and are toxic to both bees and people. Do not eat any of the honey. Do not expose the honey and wax where other bees can reach them, or you may damage valuable honey bee colonies nearby. The location within the wall will be attractive to other swarms unless it is sealed tightly to keep them out or is filled with some type of insulating material.

There is an element of risk, or at least uncertainty, in dealing with bees, and you may prefer to have the job done either by a competent pest-control operator or an experienced beekeeper. No matter who does the job, it may pose problems and be costly, at least in man-hours. Methods of trapping the bees or removing them alive from the wall are not recommended because they usually are unsatisfactory.

When bees or wasps enter a room or an automobile, they rarely sting but usually fly to a window instead. In a room they can be killed with an aerosol spray suitable for killing other flying insects. If a bee enters your car, remain calm, stop the car, and open the windows to let it out. A bee or wasp on the windshield or rear window may have to be "herded" out with a map or newspaper, or crushed quickly with a handkerchief or wad of paper.

Other bees

Bumble bees are occasionally a problem when they nest in and around buildings or near walks. They like to nest in old mattresses, car cushions, and other places such as mouse nests. The colonies vary widely in disposition and size, with rarely more than a few hundred bees to a colony. They can be killed by insecticide dust or spray applied to the nest at night.

Use the same compounds that were suggested for destroying honey bees.

Carpenter bees are large metallic-colored bees similar in size and general appearance to bumble bees. They are solitary bees that rarely sting, but when they bore holes and nest in redwood or other soft woods around the home, they often frighten people. These bees can be killed by injecting insecticide dust, spray, or aerosol into their individual nest holes. Use the materials suggested for honey bees.

Wasps

Hornets, yellow jackets, and paper wasps are social wasps that build gray paper nests under eaves, in shrubbery, or in underground cavities near buildings or walks. They often sting people who approach the nests. If the insect troubling you has an underground nest, it is sure to be a wasp because honey bees do not nest beneath the ground. Solitary wasps, even the very large cicada-killer wasps that nest in the ground, rarely sting unless they are handled or get caught in your clothing. They do not have a well-developed instinct to protect their nests as do the social species.

Nests above ground should be sprayed at night with carbaryl (Sevin). Be sure the spray enters the nest entrance, where it is most effective. Aerosol spray cans are generally not suitable for this purpose because too little insecticide enters into, and remains on, the nest. Underground wasp nests can be treated by spraying or dusting the same material into the entrance at night. Cover the entrance with a shovel-ful of moist soil after treatment.

Dichlorvos resin strips can be used to control small wasp colonies and individual wasps in unoccupied attics. However, do not place the strips in the same open area where food or beekeeping equipment is stored.



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Insecticide sprays and dusts

<i>Spray formulations</i>	<i>Amt. in gal. water</i>	<i>Spray concentration</i>
Carbaryl (Sevin)		
50% wettable powder	8 tbsp.	0.5%
Diazinon		
25% emulsifiable concentrate	5 tbsp.	0.5%
Malathion		
50 to 57% emulsifiable concentrate	9 tbsp.	2.0%
<i>Dust formulations</i>		
Carbaryl (Sevin) — 5%		
Malathion — 5%		

Precautions

The insecticides listed here may be injurious to man and other animals if used improperly. Use them only when needed, and handle and store them with care. Read and follow all label directions. Bees and wasps are highly beneficial insects. Kill only those that may be a hazard to people around your home, farm, or place of business.

This circular was prepared by Elbert R. Jaycox, Professor of Apiculture, with the help of Stevenson Moore III, Professor of Agricultural Entomology. It replaces Circular 1011.

The Illinois Cooperative Extension Service provides equal opportunities in programs and employment.

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